

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P853856

Luminaire Tested: SQ2-FB-075U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853856
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-075U-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

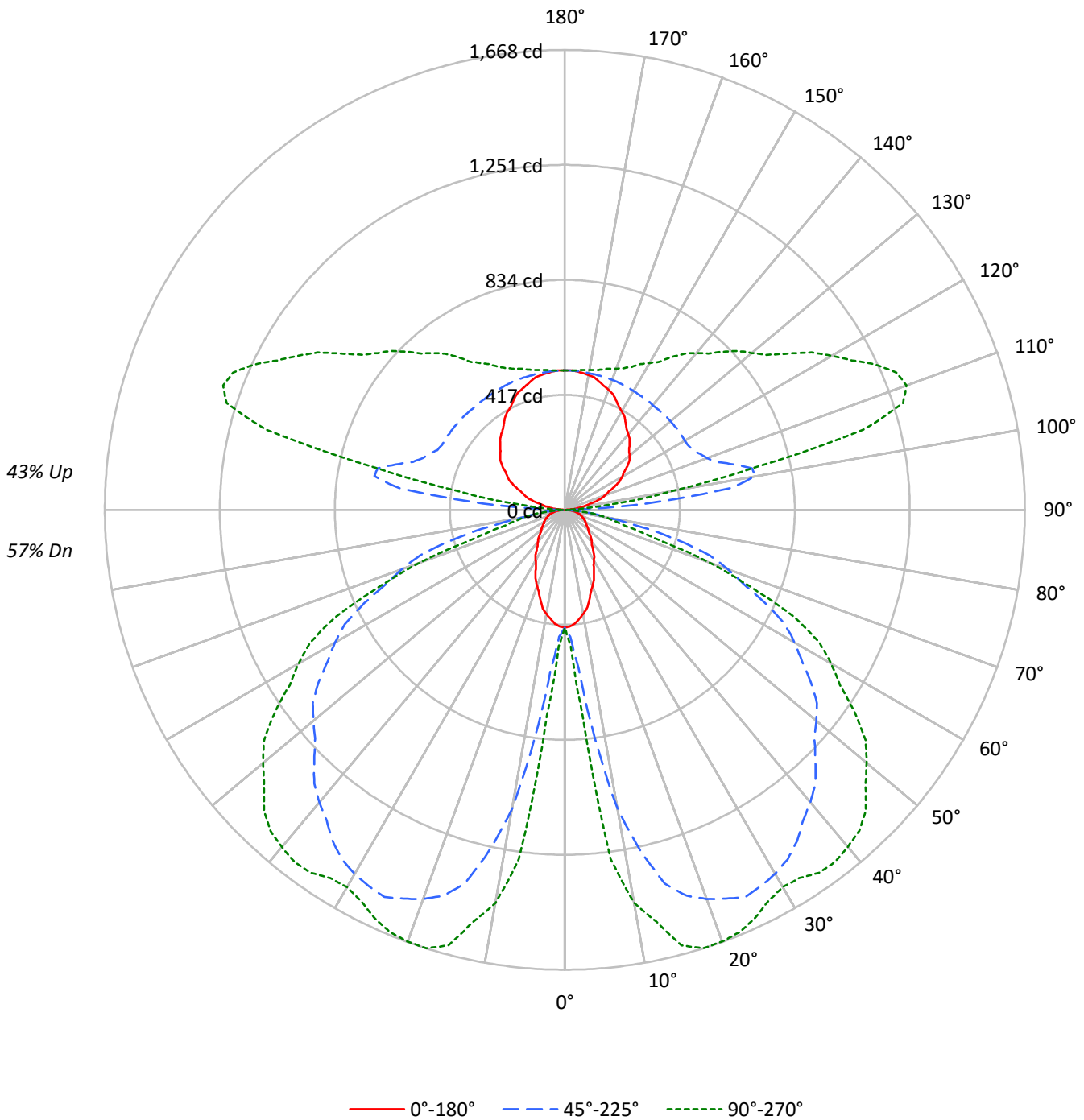
Lumens per Lamp: N/A
Luminaire Lumens: 7351.5 lumens
Efficiency: N/A
Efficacy: 120.7 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 60.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	109	109	109	109	101	101	101	101	87	87	87	75	75	75	63	63	63	57	57	57	57
1	99	95	91	87	92	88	85	82	76	74	71	65	64	62	55	54	53	48	48	48	48
2	90	82	76	70	83	77	71	66	66	62	58	57	54	51	48	46	44	39	39	39	39
3	82	72	64	58	76	67	60	55	58	53	49	50	46	42	42	39	37	33	33	33	33
4	74	63	55	49	69	59	52	46	51	45	41	44	39	36	37	34	31	28	28	28	28
5	68	56	47	41	63	52	45	39	45	39	35	39	34	31	33	29	27	23	23	23	23
6	63	50	41	35	58	47	39	34	41	35	30	35	30	26	30	26	23	20	20	20	20
7	58	45	37	31	53	42	34	29	37	31	26	32	27	23	27	23	20	18	18	18	18
8	53	41	32	27	49	38	31	26	33	27	23	29	24	20	25	21	18	15	15	15	15
9	50	37	29	24	46	35	27	23	30	24	20	26	21	18	22	19	16	14	14	14	14
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	21	17	14	12	12	12	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6889	6889	6889
5°	6716	9310	12203
10°	6291	18029	23746
15°	5693	23457	27331
20°	5041	25804	28624
25°	4459	27595	29094
30°	3939	28418	29451
35°	3518	28913	31663
40°	3199	29187	33641
45°	2952	29325	35228
50°	2783	29888	35867
55°	2714	30666	36152
60°	2784	31071	35973
65°	2900	30647	34957
70°	3002	29637	26441
75°	3325	26619	14591
80°	3431	13733	13547
85°	3427	9503	5706

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 36479 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.5	1.0
10°-20°	326.3	4.4
20°-30°	574.2	7.8
30°-40°	743.2	10.1
40°-50°	819.7	11.2
50°-60°	765.3	10.4
60°-70°	591.5	8.0
70°-80°	272.9	3.7
80°-90°	52.6	0.7
90°-100°	191.4	2.6
100°-110°	634.6	8.6
110°-120°	629.9	8.6
120°-130°	513.0	7.0
130°-140°	417.0	5.7
140°-150°	323.8	4.4
150°-160°	233.3	3.2
160°-170°	142.9	1.9
170°-180°	48.3	0.7
0°-30°	972.0	13.2
0°-40°	1715.2	23.3
0°-60°	3300.3	44.9
0°-90°	4217.2	57.4
90°-120°	1456.0	19.8
90°-150°	2709.8	36.9
90°-180°	3134.0	42.6
0°-180°	7351.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	427	427	427	427	427	
5°	414	475	574	701	753	38
15°	341	672	1403	1571	1635	95
25°	250	902	1549	1617	1633	115
35°	178	871	1467	1518	1606	112
45°	129	667	1284	1475	1543	100
55°	96	397	1089	1252	1284	87
65°	76	224	802	899	915	74
75°	53	138	427	230	234	55
85°	18	40	51	35	31	19
90°	0	1	3	4	4	2
95°	27	80	347	124	83	31
105°	111	158	635	1198	1120	117
115°	198	237	512	1065	1245	196
125°	277	307	502	837	986	246
135°	331	365	498	718	810	256
145°	385	413	497	618	676	241
155°	439	454	500	552	572	202
165°	482	487	502	522	527	136
175°	504	504	505	508	507	48
180°	506	506	506	506	506	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	426.7	426.7	426.7	426.7	426.7
2.5°	423.5	441.1	461.2	484.4	494.0
5°	414.4	474.6	574.4	700.8	752.9
7.5°	398.4	520.8	835.4	1173.4	1277.7
10°	383.7	554.2	1099.7	1392.3	1448.4
12.5°	367.2	598.7	1265.4	1471.1	1528.9
15°	340.6	671.6	1403.3	1570.9	1635.1
17.5°	313.1	753.6	1467.3	1632.6	1667.5
20°	293.4	810.9	1501.8	1643.8	1665.9
22.5°	275.3	853.9	1526.4	1634.0	1657.7
25°	250.3	902.3	1549.0	1617.0	1633.1
27.5°	226.1	915.0	1539.1	1583.8	1599.4
30°	211.3	911.4	1524.3	1557.7	1579.7
32.5°	198.2	901.5	1503.0	1535.3	1583.0
35°	178.5	870.6	1466.9	1518.1	1606.4
37.5°	161.7	820.8	1419.3	1524.2	1609.3
40°	151.8	783.7	1384.8	1523.9	1596.1
42.5°	142.0	740.2	1345.4	1507.5	1579.7
45°	129.3	666.9	1284.3	1474.6	1542.8
47.5°	117.4	584.4	1227.7	1429.0	1478.8
50°	110.8	528.0	1189.9	1387.8	1427.9
52.5°	104.2	473.3	1152.2	1338.5	1375.4
55°	96.4	397.3	1089.4	1252.2	1284.3
57.5°	89.5	332.2	1018.0	1156.9	1183.0
60°	86.2	296.8	962.2	1087.9	1114.0
62.5°	81.2	264.6	899.8	1015.7	1040.2
65°	75.9	224.4	802.2	899.0	915.0
67.5°	68.5	194.5	698.4	757.6	727.5
70°	63.6	179.9	627.8	646.3	560.1
72.5°	60.3	163.8	550.7	501.8	338.5
75°	53.3	137.6	426.7	229.9	233.9
77.5°	43.5	106.5	280.7	176.5	180.1
80°	36.9	87.1	147.7	143.7	145.7
82.5°	30.4	67.7	101.8	105.8	103.0
85°	18.5	40.5	51.3	34.8	30.8
87.5°	6.6	14.8	8.8	9.0	9.0
90°	0.0	1.0	3.1	4.2	4.2
92.5°	8.4	32.4	95.4	30.9	26.0
95°	27.2	80.5	346.9	123.8	82.8
97.5°	50.1	105.8	605.6	353.2	223.2
100°	66.0	119.3	701.2	602.2	399.3
102.5°	83.6	135.3	695.3	920.3	695.3
105°	111.1	158.2	635.1	1198.3	1120.4
107.5°	139.2	181.2	577.5	1226.5	1285.8
110°	155.1	197.1	548.1	1198.6	1318.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	171.9	213.1	530.5	1149.0	1301.7
115°	198.1	237.0	511.5	1064.8	1245.1
117.5°	224.1	258.7	504.5	984.2	1173.4
120°	240.0	273.8	502.0	933.8	1117.2
122.5°	254.3	287.3	502.0	892.4	1061.9
125°	276.7	307.4	502.0	836.6	986.2
127.5°	295.1	325.3	500.8	794.4	922.3
130°	306.0	337.8	499.9	769.8	884.6
132.5°	316.1	348.7	499.1	749.4	852.7
135°	331.2	365.0	497.8	717.9	810.2
137.5°	347.5	380.1	496.6	687.5	768.9
140°	358.4	390.2	495.7	667.2	742.0
142.5°	368.5	399.5	496.6	646.9	713.5
145°	384.6	413.3	496.8	617.6	676.0
147.5°	402.0	426.0	497.0	592.7	636.2
150°	412.9	434.5	497.8	578.3	615.2
152.5°	423.0	443.7	498.7	566.4	595.9
155°	439.1	454.5	499.9	551.8	572.2
157.5°	454.9	466.8	501.2	541.3	555.9
160°	463.2	473.5	502.0	533.7	545.0
162.5°	471.6	479.4	502.0	528.6	537.5
165°	482.1	487.2	502.0	522.1	527.2
167.5°	491.8	494.4	503.1	516.1	518.8
170°	496.8	497.8	503.1	513.6	514.6
172.5°	500.1	501.2	503.9	511.0	511.3
175°	504.1	504.1	505.2	508.3	507.3
177.5°	506.2	506.2	505.4	507.0	505.4
180°	506.2	506.2	506.2	506.2	506.2



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	14.42	15.38	15.30	16.29	17.45	23.15	24.12	24.04	25.03	26.19
	3H	15.15	16.02	16.05	16.94	18.12	24.78	25.65	25.68	26.57	27.75
	4H	15.46	16.28	16.37	17.20	18.40	24.97	25.79	25.88	26.71	27.91
	6H	15.68	16.43	16.61	17.37	18.57	25.06	25.81	25.98	26.74	27.95
	8H	15.74	16.46	16.67	17.41	18.62	25.07	25.79	26.00	26.73	27.94
	12H	15.77	16.46	16.71	17.40	18.63	25.04	25.73	25.98	26.67	27.90
4H	2H	18.83	19.65	19.75	20.57	21.76	23.61	24.43	24.53	25.35	26.54
	3H	19.77	20.45	20.70	21.41	22.62	25.44	26.13	26.37	27.08	28.29
	4H	20.06	20.68	21.00	21.63	22.86	25.69	26.31	26.63	27.26	28.49
	6H	20.20	20.73	21.15	21.71	22.94	25.84	26.37	26.79	27.35	28.58
	8H	20.22	20.72	21.18	21.69	22.94	25.87	26.37	26.82	27.33	28.58
	12H	20.22	20.67	21.19	21.65	22.91	25.84	26.30	26.82	27.28	28.54
8H	4H	21.24	21.74	22.20	22.71	23.96	25.81	26.31	26.77	27.28	28.53
	6H	21.48	21.90	22.47	22.91	24.15	26.02	26.44	27.01	27.45	28.69
	8H	21.56	21.92	22.55	22.92	24.19	26.09	26.45	27.08	27.45	28.71
	12H	21.59	21.91	22.58	22.90	24.21	26.08	26.40	27.08	27.40	28.71
12H	4H	21.27	21.72	22.24	22.70	23.96	25.77	26.22	26.75	27.21	28.46
	6H	21.58	21.94	22.57	22.94	24.21	26.01	26.37	27.00	27.37	28.64
	8H	21.69	22.01	22.69	23.00	24.31	26.08	26.40	27.08	27.39	28.70